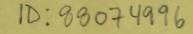


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TECHNICAL NOTE

Date Issued MAY 2 5 1970

Bureau of Land Management U.S. DEPARTMENT OF THE INTERIOR

Subject: Mineral Valuation, Solid Minerals, [May 1970]

Selected References (relatively recent):

- Johnson, Edward W. and Bennett, Harold J., 1969, "An Economic Evaluation of an Ore Body," in <u>Operations Research and Com-</u> <u>puter Application in the Minerals Industries</u>. Quarterly of the Colorado School of Mines, Volume 64, No. 3, July 1969. Gives computer program (FORTRAN) for ADP evaluation model.
- 2. Johnson, Edward E. and Bennett, Harold J., 1968, "An Engineering and Economic Study of a Gold Mining Operation," Bureau of Mines Information Circular 8374, GPO. Also contains a FORTRAN program for the ADP model.
- 3. Peiker and Forsythe, 1969, "Financial Analysis--Henderson Project" in the above listed quarterly. Contains probability (risk) analysis of various input factors.
- 4. Grosz, 1969, "The Changing Economics of Surface Mining A Case History" in <u>Case Studies of Surface Mining</u>, Howard L. Hartman, Editor, AIME.
- 5. Mackenzie, 1969, "A Decision-Making Theory of the Mining Firm" in <u>Proceedings of the Council of Economics of AIME</u>, Annual meeting, February 16 - 20, 1969, AIME. Explains the relationship of "gamblers ruin" to mineral exploration.
- 6. Halls, Bellum and Lewis, 1969, "The Determination of Optimum Ore Reserves and Plant Size by Incremental Financial Analysis" in above listed Proceedings of the Council of Economics of <u>AIME</u>. Compares overall and incremental returns from several different size copper mines using different grade cutoffs.
- Mackenzie, 1969, "Economic Evaluation Techniques Applied to the Mine Development Decision," Society of Mining Engineers (SME) Preprint 69-K-326, AIME.
- 8. O'Brian, Daniel T., 1969, "Financial Analysis: A Tool for the Progressive Mining Man," SME Preprint 69AR76, AIME. Published in October 1969 issue of <u>Mining Engineering</u>. Contains risk (probability) analysis of various input factors.

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- 9. Jones, Cyril, 1968, "Economic Analysis for Mining Ventures and Projects" in Surface Mining, AIME.
- Weisner, 1969, "Determining Plant Size for a New Mining Venture." Presented at the SME meeting, Salt Lake City, September 1969.
- 11. Weiss, Alfred, Editor, 1969, <u>A Decade of Digital Computing</u> in the Mineral Industry, AIME. Contains a number of articles of interest:
  - a. O'Brian, D. T., "Financial Analysis Applications in Mineral Exploration and Development," pp. 47-62.
  - b. Michelson and Polta, "A Discounted Cash Flow Model for Evaluating the Cost of Producing Iron Ore Pellets from Magnetic Taconite," pp. 211-240.
  - c. Trafton and Shienkin, "Computer Application in Financial Analysis," pp. 241-254.
- 12. Colby and Brooks, 1969, "Mineral Resource Valuation for Public Policy," Bureau of Mines Information Circular 8422, GPO.
- 13. Verner and Shurtz, 1966, "For Mine Evaluation A Fresh Model," Mining Engineering, November 1966, pp. 65-71.
- 14. Lewis, C. K., 1969, 'An "Economic Life" for Property Evaluation,' <u>Engineering and Mining Journal</u>, October 1969, pp. 78 and 79.
- Petrick, Alfred, 1964, "You Can Solve the Complex Problem of Capital Investment," <u>Metal Mining and Processing</u>, August 1964, pp. 32-37.
- 16. Robie, Edward H., Editor, 1964, <u>Economics of the Mineral</u> <u>Industries</u>, AIME, New York. Contains several chapters of interest:

Chapter 4	Valuation of Mineral Property
Chapter 5	(Part 1) Cost of Acquiring and Operating Metal,
	Non-Metal and Coal Properties
Chapter 6	(Part 1) Mine Financing
Chapter 9	(Part 1) Accounting for the Extractive Industries
Chapter 10	Taxation of Mineral Properties

(This volume is being revised.)